

LISTING OF CLAIMS:

1. - 132. (Canceled)

133. (Currently amended) A DNA probe set, said probe set comprising a first probe set and a second probe set,

said first probe set being sufficient in length and substantially complementary to an ~~entire breakpoint~~ a deletion region of a ~~chromosome~~ first DNA and ~~nucleotides on both sides of the breakpoint region~~ but less than an entire chromosome such that said first probe set will hybridize to ~~both sides of the breakpoint~~ deletion region regardless of whether a second DNA from a region other than the breakpoint region has been inserted in the breakpoint region, and

said second probe set being sufficient in length and substantially complementary to ~~a 3' end and a 5' end of a second DNA~~ nucleotides in the regions of the chromosome flanking the deletion region but less than an entire chromosome such that said second probe set will hybridize to ~~both ends of the second DNA~~ the flanking regions regardless of whether the second DNA is inserted in the first DNA ~~deletion region is present~~.

134. (Previously presented) The probe set of claim 133, wherein said probes are detectably labeled.

135. - 140. (Canceled)

141. (Currently amended) A diagnostic kit ~~for detecting a structural abnormality caused by chromosomal breakage and rearrangement~~ containing a reagent comprising at least one probe set ~~of the probe set according to claim 133~~; and a container containing said reagent, wherein said probe set is selected from the group consisting of

a first probe set sufficient in length and substantially complementary to a deletion region of a chromosome but less than an entire chromosome such that said first probe set will hybridize to the deletion region, and
a second probe set sufficient in length and substantially complementary to nucleotides in the regions of the chromosome flanking a deletion region but less than an entire chromosome such that said second probe set will hybridize to the flanking regions regardless of whether the deletion region is present.

142. (Previously presented) A diagnostic kit according to claim 141 further comprising at least two containers, wherein a first container contains a reagent comprising said first probe set and a second container contains a reagent comprising said second probe set.

143. (Previously presented) A diagnostic kit according to claim 142 wherein said reagent comprises said first and said second probe sets.